

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/575, 457
Source: JFWP
Date Processed by STIC: 05/04/2006

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 05/04/2006

PATENT APPLICATION: US/10/575,457

TIME: 12:47:45

Input Set : A:\08576.0004-00000 Sequence Listing.txt

Output Set: N:\CRF4\05042006\J575457.raw

```

3 <110> APPLICANT: Elan Pharmaceuticals, Inc.
4     Zhao, Byron
5     Mei, Yu
7 <120> TITLE OF INVENTION: Neuroprotective Effects of ATF6
9 <130> FILE REFERENCE: 08576.0004-00304
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/575,457
C--> 12 <141> CURRENT FILING DATE: 2006-04-12
14 <150> PRIOR APPLICATION NUMBER: 60/491,565
15 <151> PRIOR FILING DATE: 2003-08-01
17 <160> NUMBER OF SEQ ID NOS: 11
19 <170> SOFTWARE: PatentIn version 3.2
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 10
23 <212> TYPE: DNA
24 <213> ORGANISM: human, rat, murine
26 <400> SEQUENCE: 1
27 ggtgacgtgg                                     10
30 <210> SEQ ID NO: 2
31 <211> LENGTH: 10
32 <212> TYPE: DNA
33 <213> ORGANISM: human, rat, murine
35 <400> SEQUENCE: 2
36 ggtgacgtga                                     10
39 <210> SEQ ID NO: 3
40 <211> LENGTH: 19
41 <212> TYPE: DNA
42 <213> ORGANISM: human, rat, murine
44 <400> SEQUENCE: 3
45 ccaatcggcg gcggccacg                             19
48 <210> SEQ ID NO: 4
49 <211> LENGTH: 670
50 <212> TYPE: PRT
51 <213> ORGANISM: human
53 <400> SEQUENCE: 4
55 Met Gly Glu Pro Ala Gly Val Ala Gly Thr Met Glu Ser Pro Phe Ser
56 1           5           10           15
59 Pro Gly Leu Phe His Arg Leu Asp Glu Asp Trp Asp Ser Ala Leu Phe
60           20           25           30
63 Ala Glu Leu Gly Tyr Phe Thr Asp Thr Asp Glu Leu Gln Leu Glu Ala
64           35           40           45
67 Ala Asn Glu Thr Tyr Glu Asn Asn Phe Asp Asn Leu Asp Phe Asp Leu
68           50           55           60
71 Asp Leu Leu Pro Trp Glu Ser Asp Ile Trp Asp Ile Asn Asn Gln Ile

```

RAW SEQUENCE LISTING

DATE: 05/04/2006

PATENT APPLICATION: US/10/575,457

TIME: 12:47:45

Input Set : A:\08576.0004-00000 Sequence Listing.txt

Output Set: N:\CRF4\05042006\J575457.raw

```

72 65          70          75          80
75 Cys Thr Val Lys Asp Ile Lys Ala Glu Pro Gln Pro Leu Ser Pro Ala
76          85          90          95
79 Ser Ser Ser Tyr Ser Val Ser Ser Pro Arg Ser Val Asp Ser Tyr Ser
80          100          105          110
83 Ser Thr Gln His Val Pro Glu Glu Leu Asp Leu Ser Ser Ser Ser Gln
84          115          120          125
87 Met Ser Pro Leu Ser Leu Tyr Gly Glu Asn Ser Asn Ser Leu Ser Ser
88          130          135          140
91 Pro Glu Pro Leu Lys Glu Asp Lys Pro Val Thr Gly Ser Arg Asn Lys
92 145          150          155          160
95 Thr Glu Asn Gly Leu Thr Pro Lys Lys Lys Ile Gln Val Asn Ser Lys
96          165          170          175
99 Pro Ser Ile Gln Pro Lys Pro Leu Leu Pro Ala Ala Pro Lys Thr
100          180          185          190
103 Gln Thr Asn Ser Ser Val Pro Ala Lys Thr Ile Ile Ile Gln Thr Val
104          195          200          205
107 Pro Thr Leu Met Pro Leu Ala Lys Gln Gln Pro Ile Ile Ser Leu Gln
108          210          215          220
111 Pro Ala Pro Thr Lys Gly Gln Thr Val Leu Leu Ser Gln Pro Thr Val
112 225          230          235          240
115 Val Gln Leu Gln Ala Pro Gly Val Leu Pro Ser Ala Gln Pro Val Leu
116          245          250          255
119 Ala Val Ala Gly Gly Val Thr Gln Leu Pro Asn His Val Val Asn Val
120          260          265          270
123 Val Pro Ala Pro Ser Ala Asn Ser Pro Val Asn Gly Lys Leu Ser Val
124          275          280          285
127 Thr Lys Pro Val Leu Gln Ser Thr Met Arg Asn Val Gly Ser Asp Ile
128          290          295          300
131 Ala Val Leu Arg Arg Gln Gln Arg Met Ile Lys Asn Arg Glu Ser Ala
132 305          310          315          320
135 Cys Gln Ser Arg Lys Lys Lys Lys Glu Tyr Met Leu Gly Leu Glu Ala
136          325          330          335
139 Arg Leu Lys Ala Ala Leu Ser Glu Asn Glu Gln Leu Lys Lys Glu Asn
140          340          345          350
143 Gly Thr Leu Lys Arg Gln Leu Asp Glu Val Val Ser Glu Asn Gln Arg
144          355          360          365
147 Leu Lys Val Pro Ser Pro Lys Arg Arg Val Val Cys Val Met Ile Val
148          370          375          380
151 Leu Ala Phe Ile Ile Leu Asn Tyr Gly Pro Met Ser Met Leu Glu Gln
152 385          390          395          400
155 Asp Ser Arg Arg Met Asn Pro Ser Val Gly Pro Ala Asn Gln Arg Arg
156          405          410          415
159 His Leu Leu Gly Phe Ser Ala Lys Glu Ala Gln Asp Thr Ser Asp Gly
160          420          425          430
163 Ile Ile Gln Lys Asn Ser Tyr Arg Tyr Asp His Ser Val Ser Asn Asp
164          435          440          445
167 Lys Ala Leu Met Val Leu Thr Glu Glu Pro Leu Leu Tyr Ile Pro Pro
168          450          455          460

```

RAW SEQUENCE LISTING

DATE: 05/04/2006

PATENT APPLICATION: US/10/575,457

TIME: 12:47:45

Input Set : A:\08576.0004-00000 Sequence Listing.txt

Output Set: N:\CRF4\05042006\J575457.raw

```

171 Pro Pro Cys Gln Pro Leu Ile Asn Thr Thr Glu Ser Leu Arg Leu Asn
172 465          470          475          480
175 His Glu Leu Arg Gly Trp Val His Arg His Glu Val Glu Arg Thr Lys
176          485          490          495
179 Ser Arg Arg Met Thr Asn Asn Gln Gln Lys Thr Arg Ile Leu Gln Gly
180          500          505          510
183 Val Val Glu Gln Gly Ser Asn Ser Gln Leu Met Ala Val Gln Tyr Thr
184          515          520          525
187 Glu Thr Thr Ser Ser Ile Ser Arg Asn Ser Gly Ser Glu Leu Gln Val
188          530          535          540
191 Tyr Tyr Ala Ser Pro Arg Ser Tyr Gln Asp Phe Phe Glu Ala Ile Arg
192 545          550          555          560
195 Arg Arg Gly Asp Thr Phe Tyr Val Val Ser Phe Arg Arg Asp His Leu
196          565          570          575
199 Leu Leu Pro Ala Thr Thr His Asn Lys Thr Thr Arg Pro Lys Met Ser
200          580          585          590
203 Ile Val Leu Pro Ala Ile Asn Ile Asn Glu Asn Val Ile Asn Gly Gln
204          595          600          605
207 Asp Tyr Glu Val Met Met Gln Ile Asp Cys Gln Val Met Asp Thr Arg
208          610          615          620
211 Ile Leu His Ile Lys Ser Ser Ser Val Pro Pro Tyr Leu Arg Asp Gln
212 625          630          635          640
215 Gln Arg Asn Gln Thr Asn Thr Phe Phe Gly Ser Pro Pro Ala Ala Thr
216          645          650          655
219 Glu Ala Thr His Val Val Ser Thr Ile Pro Glu Ser Leu Gln
220          660          665          670
223 <210> SEQ ID NO: 5
224 <211> LENGTH: 703
225 <212> TYPE: PRT
226 <213> ORGANISM: human
228 <400> SEQUENCE: 5
230 Met Ala Glu Leu Met Leu Leu Ser Glu Ile Ala Asp Pro Thr Arg Phe
231 1          5          10          15
234 Phe Thr Asp Asn Leu Leu Ser Pro Glu Asp Trp Gly Leu Gln Asn Ser
235          20          25          30
238 Thr Leu Tyr Ser Gly Leu Asp Glu Val Ala Glu Glu Gln Thr Gln Leu
239          35          40          45
242 Phe Arg Cys Pro Glu Gln Asp Val Pro Phe Asp Gly Ser Ser Leu Asp
243          50          55          60
246 Val Gly Met Asp Val Ser Pro Ser Glu Pro Pro Trp Glu Leu Leu Pro
247 65          70          75          80
250 Ile Phe Pro Asp Leu Gln Val Lys Ser Glu Pro Ser Ser Pro Cys Ser
251          85          90          95
254 Ser Ser Ser Leu Ser Ser Glu Ser Ser Arg Leu Ser Thr Glu Pro Ser
255          100          105          110
258 Ser Glu Ala Leu Gly Val Gly Glu Val Leu His Val Lys Thr Glu Ser
259          115          120          125
262 Leu Ala Pro Pro Leu Cys Leu Leu Gly Asp Asp Pro Thr Ser Ser Phe
263          130          135          140

```

RAW SEQUENCE LISTING

DATE: 05/04/2006

PATENT APPLICATION: US/10/575,457

TIME: 12:47:45

Input Set : A:\08576.0004-00000 Sequence Listing.txt

Output Set: N:\CRF4\05042006\J575457.raw

```

266 Glu Thr Val Gln Ile Asn Val Ile Pro Thr Ser Asp Asp Ser Ser Asp
267 145 150 155 160
270 Val Gln Thr Lys Ile Glu Pro Val Ser Pro Cys Ser Ser Val Asn Ser
271 165 170 175
274 Glu Ala Ser Leu Leu Ser Ala Asp Ser Ser Ser Gln Ala Phe Ile Gly
275 180 185 190
278 Glu Glu Val Leu Glu Val Lys Thr Glu Ser Leu Ser Pro Ser Gly Cys
279 195 200 205
282 Leu Leu Trp Asp Val Pro Ala Pro Ser Leu Gly Ala Val Gln Ile Ser
283 210 215 220
286 Met Gly Pro Ser Leu Asp Gly Ser Ser Gly Lys Ala Leu Pro Thr Arg
287 225 230 235 240
290 Lys Pro Pro Leu Gln Pro Lys Pro Val Val Leu Thr Thr Val Pro Met
291 245 250 255
294 Pro Ser Arg Ala Val Pro Pro Ser Thr Thr Val Leu Leu Gln Ser Leu
295 260 265 270
298 Val Gln Pro Pro Pro Val Ser Pro Val Val Leu Ile Gln Gly Ala Ile
299 275 280 285
302 Arg Val Gln Pro Glu Gly Pro Ala Pro Ser Leu Pro Arg Pro Glu Arg
303 290 295 300
306 Lys Ser Ile Val Pro Ala Pro Met Pro Gly Asn Ser Cys Pro Pro Glu
307 305 310 315 320
310 Val Asp Ala Lys Leu Leu Lys Arg Gln Gln Arg Met Ile Lys Asn Arg
311 325 330 335
314 Glu Ser Ala Cys Gln Ser Arg Arg Lys Lys Lys Glu Tyr Leu Gln Gly
315 340 345 350
318 Leu Glu Ala Arg Leu Gln Ala Val Leu Ala Asp Asn Gln Gln Leu Arg
319 355 360 365
322 Arg Glu Asn Ala Ala Leu Arg Arg Arg Leu Glu Ala Leu Leu Ala Glu
323 370 375 380
326 Asn Ser Glu Leu Lys Leu Gly Ser Gly Asn Arg Lys Val Val Cys Ile
327 385 390 395 400
330 Met Val Phe Leu Leu Phe Ile Ala Phe Asn Phe Gly Pro Val Ser Ile
331 405 410 415
334 Ser Glu Pro Pro Ser Ala Pro Ile Ser Pro Arg Met Asn Lys Gly Glu
335 420 425 430
338 Pro Gln Pro Arg Arg His Leu Leu Gly Phe Ser Glu Gln Glu Pro Val
339 435 440 445
342 Gln Gly Val Glu Pro Leu Gln Gly Ser Ser Gln Gly Pro Lys Glu Pro
343 450 455 460
346 Gln Pro Ser Pro Thr Asp Gln Pro Ser Phe Ser Asn Leu Thr Ala Phe
347 465 470 475 480
350 Pro Gly Gly Ala Lys Glu Leu Leu Leu Arg Asp Leu Asp Gln Leu Phe
351 485 490 495
354 Leu Ser Ser Asp Cys Arg His Phe Asn Arg Thr Glu Ser Leu Arg Leu
355 500 505 510
358 Ala Asp Glu Leu Ser Gly Trp Val Gln Arg His Gln Arg Gly Arg Arg
359 515 520 525
362 Lys Ile Pro Gln Arg Ala Gln Glu Arg Gln Lys Ser Gln Pro Arg Lys

```

RAW SEQUENCE LISTING

DATE: 05/04/2006

PATENT APPLICATION: US/10/575,457

TIME: 12:47:45

Input Set : A:\08576.0004-00000 Sequence Listing.txt

Output Set: N:\CRF4\05042006\J575457.raw

```

363      530      535      540
366 Lys Ser Pro Pro Val Lys Ala Val Pro Ile Gln Pro Pro Gly Pro Pro
367 545      550      555      560
370 Glu Arg Asp Ser Val Gly Gln Leu Gln Leu Tyr Arg His Pro Asp Arg
371      565      570      575
374 Ser Gln Pro Ala Phe Leu Asp Ala Ile Asp Arg Arg Glu Asp Thr Phe
375      580      585      590
378 Tyr Val Val Ser Phe Arg Arg Asp His Leu Leu Leu Pro Ala Ile Ser
379      595      600      605
382 His Asn Lys Thr Ser Arg Pro Lys Met Ser Leu Val Met Pro Ala Met
383      610      615      620
386 Ala Pro Asn Glu Thr Leu Ser Gly Arg Gly Ala Pro Gly Asp Tyr Glu
387 625      630      635      640
390 Glu Met Met Gln Ile Glu Cys Glu Val Met Asp Thr Arg Val Ile His
391      645      650      655
394 Ile Lys Thr Ser Thr Val Pro Pro Ser Leu Arg Lys Gln Pro Ser Pro
395      660      665      670
398 Thr Pro Gly Asn Ala Thr Gly Gly Pro Leu Pro Val Ser Ala Ala Ser
399      675      680      685
402 Gln Ala His Gln Ala Ser His Gln Pro Leu Tyr Leu Asn His Pro
403      690      695      700
406 <210> SEQ ID NO: 6
407 <211> LENGTH: 678
408 <212> TYPE: PRT
409 <213> ORGANISM: mouse
411 <400> SEQUENCE: 6
413 Leu Thr His Pro Ser Cys Glu Gly Glu Val Ser Val Ser Gly Lys Pro
414 1      5      10      15
417 Ala Cys Val Ala Gly Ala Met Glu Ser Pro Phe Ser Pro Val Leu Pro
418      20      25      30
421 His Gly Pro Asp Glu Asp Trp Glu Ser Thr Leu Phe Ala Glu Leu Gly
422      35      40      45
425 Tyr Phe Thr Asp Thr Asp Asp Val His Phe Asp Ala Ala His Glu Ala
426      50      55      60
429 Tyr Glu Asn Asn Phe Asp His Leu Asn Phe Asp Leu Asp Leu Met Pro
430 65      70      75      80
433 Trp Glu Ser Asp Leu Trp Ser Pro Gly Ser His Phe Cys Ser Asp Met
434      85      90      95
437 Lys Ala Glu Pro Gln Pro Leu Ser Pro Ala Ser Ser Ser Cys Ser Ile
438      100      105      110
441 Ser Ser Pro Arg Ser Thr Asp Ser Cys Ser Ser Thr Gln His Val Pro
442      115      120      125
445 Glu Glu Leu Asp Leu Leu Ser Ser Ser Gln Ser Pro Leu Ser Leu Tyr
446      130      135      140
449 Gly Asp Ser Cys Asn Ser Pro Ser Ser Val Glu Pro Leu Lys Glu Glu
450 145      150      155      160
453 Lys Pro Val Thr Gly Pro Gly Asn Lys Thr Glu His Gly Leu Thr Pro
454      165      170      175
457 Lys Lys Lys Ile Gln Met Ser Ser Lys Pro Ser Val Gln Pro Lys Pro

```

VERIFICATION SUMMARY

DATE: 05/04/2006

PATENT APPLICATION: US/10/575,457

TIME: 12:47:46

Input Set : A:\08576.0004-00000 Sequence Listing.txt

Output Set: N:\CRF4\05042006\J575457.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date